

PROCESSING TOMATO IRRIGATION TRIALS

Ohio Agricultural Research and Development Center
Southern Branch, Ripley, Ohio

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DEPARTMENT OF HORTICULTURE

OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER

WOOSTER, OHIO

Horticulture Mimeograph Series No. 370 December 30, 1970

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Department of Horticulture Mimeograph Series No. 370
December 30, 1970

PROCESSING TOMATO IRRIGATION TRIALS - 1968
W. N. Brown¹ and E. K. Alban²

Six varieties of tomatoes suitable for mechanical harvesting were used in the processing tomato irrigation trials. These were planted in three row plots, replicated five times and simulated machine harvested at one week prior to optimum harvest, at optimum harvest, and one week after optimum harvest. Irrigated area was watered when moisture of soil at six inches was approximately 50% of field capacity; approximately one inch was applied June 29. All values in Table I were computed on the basis of 30 plants per plot and five replications. The percentage values given in Table I are usable fruit No. 1 and 2s expressed as a per cent of the total fruit harvested.

CULTURAL INFORMATION

Plants: Greenhouse and frame-grown, 70 per standard flat from seed sown March 28.
Transplanted to Field: May 15 & 16 with a tobacco-type mechanical transplanter using a 10-52-8 starter solution at 3 lbs/ 50 gal. of water; $\frac{1}{2}$ pint per plant. Reset June 12.
Fertilizer: 1000 lbs./A of 0-20-20 plowed down. Nitrate $\frac{1}{2}$ lb. per row applied June 27.
Spacing: Rows five feet apart, plants 18 inches in row. Plots - three rows 45 feet long per variety per replication.
Insect and Disease Control: Spraying Dates

June 13	July 29
28	Aug 8
July 7	16
18	

	Weather Data	
	Temperature	Rainfall
June	71.7	1.10
July	74.0	7.09
August	74.1	3.61
September	67.1	2.44

SEED SOURCE

H-1 Joseph Harris Co., Inc., Moreton Farm, Rochester, New York 14624
H-3 H. J. Heinz Co., P. O. Box 127, Bowling Green, Ohio 43402

1. Department of Horticulture, OARDC, 2001 Fyffe Court, Columbus, Ohio 43210. Deceased, July 24, 1969
2. Department of Horticulture, OARDC, 2001 Fyffe Court, Columbus, Ohio 43210

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RIPLEY TOMATOES 1968
TABLE I

Variety, Lot Number and Source		Actual Yield in T/A					Green	Avg. Fruit Size	Field Decom. Fruit %	Usable Fruit %
		Red Fruit Grades			Total					
		No. 1	No. 2	Culls	1 & 2	Red				
1. Early Fireball			Too Early							
2. Fireball VR	Irr.	6.7	10.4	1.7	17.1	18.9	15.1	.239	24.8	50.3
2006 H-1	Non	5.3	9.5	2.0	14.8	16.8	9.7	.232	32.8	55.8
3. New Yorker	Irr.	4.6	7.8	1.2	12.4	13.6	8.5	.205	35.3	56.1
2008 H-1	Non	4.3	7.5	1.1	11.8	12.9	5.3	.188	27.8	64.8
4. Bouncer	Irr.	5.7	25.0	1.4	30.7	32.1	19.4	.234	10.6	59.6
2012 H-1	Non	5.1	16.5	0.9	21.6	22.4	16.6	.215	13.2	55.4
5. Heinz 1548	Irr.	7.1	16.5	2.5	23.6	26.1	15.0	.252	31.1	57.4
2018 H-1	Non	5.9	9.4	1.8	15.3	17.1	10.9	.232	25.4	54.6
6. Heinz 14456	Irr.	17.7	17.0	1.6	34.7	36.2	28.9	.234	7.7	53.3
T-68 H-3	Non	17.8	14.7	2.3	32.5	35.8	33.1	.218	7.7	47.9
Variety @ 5% level		4.83			7.28					
Treatment Irr/Non @ 5% level		3.34			8.68					

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Southern Branch, Ripley, Ohio

PROCESSING TOMATO IRRIGATION TRIALS - 1969

W. N. Brown¹ and E. K. Alban²

December 30, 1970

VC-70,p.3

One new variety was added to the five varieties used in the 1968 processing tomato irrigation trials. These six varieties were planted in three row plots, replicated five times and simulated machine harvested at one week prior to optimum harvest, at optimum harvest, and one week after optimum harvest. Irrigated area was watered when moisture of soil at six inches was approximately 50% of field capacity; approximately two inches was applied May 31. All values in Table II were computed on the basis of 30 plants per plot and five replications. The percentage values given in Table II are usable fruit No. 1 and 2s expressed as a per cent of the total fruit harvested.

CULTURAL INFORMATION

Plants: Greenhouse and frame-grown, 70 per standard flat from seed sown March 31, 1969.

Transplanted to Field: May 20 with a tobacco-type mechanical transplanter using a 10-52-8 starter solution at 3 lbs./ 50 gal. of water; $\frac{1}{2}$ pint per plant. Reset June 2.

Fertilizer: 800 lbs./A of 0-25-25 applied to a meadow sod and plowed down.

Spacing: Rows five feet apart, plants 18 inches in row. Plots - three rows 45 feet long per variety per replication.

Insect and Disease Control: Spraying dates and material

May 23 - 1#	Sevin/ 100 gal. water	July 3 - 3#	Maneb/ 100 gal. water
June 18	3# Maneb/ 100 gal. water	8	"
25	"	23	"

Weather Data

	Temperature	Rainfall
May 20-30	66.2°	.015"
June	71.5	3.08
July	75.6	5.20
August	72.3	3.26

SEED SOURCE

Code

Source

H-1	Joseph Harris Co., Inc., Moreton Farm, Rochester, New York 14624
L-3	Libby, McNeill & Libby Co., Larry Holl, Leipsic, Ohio 45856
O-1	Ohio Agric. Res. & Devel. Cent., W. N. Brown, Dept. of Horticulture, 2001 Fyffe Court, Columbus, Ohio 43210

1. Department of Horticulture, OARDC, 2001 Fyffe Court, Columbus, Ohio 43210. Deceased, July 24, 1969

2. Department of Horticulture, OARDC, 2001 Fyffe Ct., Columbus, Ohio 43210

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RIPLEY TOMATOES 1969

TABLE II

Variety, Lot Number and Source			Actual Yield in T/A					Green	Avg. Fruit Size	Field Decom. Fruit %	Usable Fruit %	
			Red Fruit Grades			Total						
			No.1	No. 2	Culls	1 & 2	Red					
1.	Fireball VR 2089	H-1	Irr. Non	16.6 19.3	17.0 11.5	7.1 5.0	33.6 30.8	40.7 35.8	4.5 3.6	.225 .216	9.6 18.9	74.3 78.2
2.	New Yorker NW 66-1	O-1	Irr. Non	13.7 17.0	13.6 12.4	4.4 3.6	27.3 29.4	31.7 33.0	1.7 1.6	.197 .197	13.1 18.3	81.7 85.0
3.	Bouncer 2012	H-1	Irr. Non	13.4 18.7	24.1 19.2	8.8 6.7	37.5 37.9	46.3 44.6	2.4 3.1	.242 .239	39.2 27.9	77.0 79.4
4.	Libby 1626 T-66	L-3	Irr. Non	22.1 26.0	7.3 8.5	7.1 5.8	29.4 34.5	36.5 40.3	4.7 3.5	.215 .205	46.4 36.6	71.3 78.8
5.	Heinz 1548 2018	H-1	Irr. Non	22.5 25.5	16.4 16.8	4.4 4.4	38.9 42.3	43.3 46.7	6.4 7.9	.241 .245	11.7 12.8	78.3 77.5
6.	Heinz 14456 NWM-66	O-1	Irr. Non	27.1 27.6	9.7 8.3	8.5 8.4	36.8 35.9	45.3 44.3	7.4 6.3	.193 .210	31.4 34.2	69.8 70.9
Variety @ 5% level				6.38			6.47					
Treatment Irr/Non @ 5% level				3.07			3.85					

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